DOCUMENT RESUME

ED 095 721 FL 006 357

AUTHOR	Zwicky, Arnold M.
TITLE	Bibliography III. Forestress and Afterstress, Compounds and Phrases. Working Papers in Linguistics, No. 16.
INSTITUTION	Ohio State Univ., Columbus. Dept. of Linguistics.
PUB DATE	Dec 73
NOTE	8p.
EDRS PRICE	MF-$0.75 HC-$1.50 PLUS POSTAGE
DESCRIPTORS	Adjectives; *Bibliographies; *Linguistics; Linguistic Theory; Literature Reviews; Morphology (Languages); *Nominals; Phrase Structure; *Suprasegmentals; Transformation Theory (Language)

ABSTRACT

The 22 entries of this bibliography constitute a survey of linguistic literature published between 1914 and 1973 on forestress and afterstress in noun compounds and phrases in English. The bibliography is actually divided into three sections. In Part 1, the introductory remarks, a summary of the various approaches to the problem of compounds and stress is given. In the second part, the contributions of transformational literature are studied. A list of explantory footnotes is included. The final section consists of the bibliographic citations. (PP)

ED 095721

FL006357

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Bibliography III.
Forestress and Afterstress, Compounds and Phrases*

A.M.Z.

A. Introductory remarks

Of the many combinations of the form N + N, N's + N, and Adj + N[1] in English, some have been classified as compounds, others as phrases or syntactic groups. Aside from orthographic considerations, there are two main criteria for classification--status as a word, and stress.

The first, and more traditional, approach treats as compound 'a combination of two or more words so as to function as one word, as a unit' (Jespersen 1942:sec. 8.1,), 'a combination of two words forming a unit which is not identical with the combined forms or meanings of its elements' (Kruisinga 1932:sec. 1581), or 'vocables which, though felt and used as single words, are made up of two or more elements each of which may also be used as a separate word' (Zandvoort 1965:sec. 803). This approach is subject to the criticism that notions like unit are intolerably vague.

The stress criterion--forestress, as in family affair, doctor's office, and blackboard, as opposed to afterstress, as in family tree, doctor's dilemma, and black board--is clearly enunciated by Bloomfield 1933:228: 'whenever we hear lesser or least stress upon a word which would always show high stress in a phrase, we describe it as a compound-member: ice-cream ['ajs-ˌkrijm] is a compound, but ice cream ['ajs 'krijm] is a phrase, although there is no denotative difference of meaning'. Both types of criteria are reviewed by Marchand 1960: sec. 2.1, who maintains that stress is criterial for certain types, while the 'underlying concept'--the nature of the syntactic or semantic relationship between the elements in a combination--is a significant factor in others. Quirk et al. 1972: 1040 consider stress, morphological properties, and productivity as distinguishing factors:

> It is usual to emphasize the distisction between the word, where convention and semantic integration fix a stress and rhythm which the individual cannot alter, and connected speech, where the disposition of stresses is subject to the speaker's will and the meaning he wishes to convey. There is much validity in this but it must not be pressed too far, since it depends on a much sharper distinction between phrases and (compound) words than English grammar and lexicology in fact warrant. It will not do to say that initial stress... indicates compounds, and final stressing...the syntactic phrases of connected speech. We have seen

> compounds like ˌdown 'stairs which (despite similarity with phrases like ˌdown the 'street) we would not wish to analyse as phrases. And ˌstill 'life (in painting), which is usually stressed in BrE as though it was a phrase, shows that it is a compound in having a different plural (still lifes) from the simplex noun (lives)...So too there are initial-stressed phrases that linguists do not normally regard as compounds, since (as is not general in word-formation...) we are as free to form such sequences as we are to form any other kind of syntactic unit:
>
> The 'strawberry ˌpicking
> The 'cabbage ˌweeding } has gone well.

They go on to suggest that 'the stress distribution provides a firm basis for distinguishing not between compound and phrase but different underlying relations between the juxtaposed items', citing pairs like 'toy ˌfactory - ˌtoy 'factory, 'bull ˌfight - ˌbull 'calf, 'French ˌteacher - ˌFrench 'teacher, and 'slate ˌquarry - ˌslate 'roof.

Some estimate of how complex the problem is can be gained from a survey of the types of N + N combinations with afterstress (contrasting with the 'normal' forestressed combinations). Poutsma 1914:ch. 23 lists the following types:

first nouns expressing qualities:
- substance: cotton apron
- indicating embodiment of a quality: giant tree, infant colony
- state or function (appositional): parent bird, clergyman cousin
- origin or habitat: Gladstone bag, Ceylon tea, Bengal tiger

first nouns expressing relations:
- possession, origin, agency: United States minister, pioneer work, party measures
- object relation: tariff reform, Government defeat
- appositive or specializing of relation: angling mania, marriage state
- other prepositional relations: chance acquaintance, Court ladies, surprise visit, university education
- predicatives: maiden name, schoolboy days, student life

to which we may add various types from Kruisinga 1932, among them the lad Robert (sec. 1181), the Savoy Hotel (1182), Buckingham Palace (1393-4), his two-volume work (1654), two dozen handkerchiefs (1855), South America (1877), King Edward, Mr. Jones, the river Rhine, Lake Ontario (1886), and emperor-king (1888). Even these do not exhaust the types; from various sources, I can add: Ann-Margret, Taft-Hartley, John Jones, Hotel Ritz, Detective Inspector, Iowa City, Madison Avenue,

Dole pineapple, Grimes apple, Cadillac Riviera, Oxford University, Eliot Hall, Tuesday meeting, science fiction, machine intelligence, 102 Broadway, Columbus, Ohio, September 1973, one hundred two, Sam Smith Junior, and TV Guide. Poutsma's classification is not, of course, definitive and may require further division or recombination.

B. The transformational literature

Nearly all transformational treatments of phrases and compounds, beginning with Lees 1960, follow Bloomfield in taking stress to be criterial. Thus, Lees limits his study of compounds to combinations with forestress, although he observes that

> It is possible that some transformation rules in the grammar differ solely in the kind of unitary stress pattern which they confer (in an as yet unspecified way) upon the transforms, for there are many cases of composites which seem to differ only in this one respect, as for example, Mádison Strèet vs. Mâdison Ávenùe, or ápple càke vs. âpple píe. Perhaps each individual morpheme is characterized by always taking in composition some one of a small number of (syntactic) junctures introduced into the sequence by the transformation itself and yielding then, by phonological rules, in the manner suggested by Chomsky, Halle, and Lukoff, the appropriate stresses. This view is supported by the fact that, at least in the author's speech, all composites in -street and -cake are compounds, while all in -avenue and -pie are invariably nominal phrases. These favored junctures would then, presumably, be overridden by certain constructions, so that, e.g., woman and doctor could combine to yield both a compound and a nominal phrase, but from differing source-sentences by two different transformational rules, say:
>
> The doctor is a woman. → wôman dóctor
> The doctor is for a woman. → wóman dɔctor (120)

In an appendix (180-5), Lees reconsiders his earlier complete separation of forestressed compounds and afterstressed phrases, noting that (a) it treats some synonymous pairs with identical syntactic structure as nevertheless in contrast, (b) it fails to explain the contrast between afterstressed combinations like young genius and child prodigy, only the former having adjectival properties, and (c) it fails to give an account of the ambiguity of phrases like legal document and logical fallacy. Accordingly, Lees develops the ideas in the long quotation above, suggesting that compounding transformations might assign both forestress and afterstress, while the shift of elements from predicate to prenominal position invariably yields afterstress. He then gives lists of 12 types of afterstressed combinations parallelling some of the 49 types of forestressed combinations treated in the main body of the work.

This proposal by Lees, that compounding transformations assign stress pattern (or, equivalently, that stress assignment rules consider earlier stages in derivations), is developed further by several authors--by Lees himself in two 1970 articles that attempt to reduce the number of source types for compounds, by Gleitman and Gleitman 1970:ch. 3, in the context of a psycholinguistic investigation, and by Levi 1973, who is interested in the derivation of combinations like electrical engineer, parallel to mining engineer (Adj + N vs. N + N: 'My claim is that both the logical structure of these two NPs, and their derivations are precisely parallel, up to the point where certain compound-initial nouns are converted into derived surface adjectives' (334)).

A survey of the literature on (forestressed) nominal compounds is to be found in Zimmer 1971 (supplemented by Zimmer 1972b), where there is also a criticism of all positive characterizations of compounds (by a listing of types or by a listing of compounding rules) and some discussion, further developed in Zimmer 1972a, of a necessary condition for compounding, the existence of an 'appropriately classificatory' relation. Zimmer 1971 includes an appendix on afterstressed combinations, with criticism of Marchand's treatment. Zimmer observes that there is 'a great deal of dialect variation which is not compatible with the neat distinction [between transpositional derivation, involving no addition of semantic elements and resulting in phrases, and semantic derivation, involving addition and resulting in compounds] that Marchand proposes' (C19),[2] that some examples do not square with Marchand's distinction in any event, and that Marchand refers to 'implicit contrast' to save his analysis.[3] Zimmer concludes:

> Given that there are a lot of idiosyncratic factors involved in the compound vs. nominal phrase distinction, it is probably still true that the relations typically embodied in nominal phrases are of a type rather different from what is found in most compounds...And compounds do seem to have a greater tendency to become idiomatized. However, it would appear that the condition of a relation's being "appropriately classificatory" applies to most nominal phrases as well as to compounds. (C19)

The Lees position, however developed or transmuted, involves transformational prediction of stress contours. Consequently it is at variance with restrictive theories about the relationship between syntax and phonology, which would require that only information available in syntactic surface structure can condition phonological rules. In fact, the description of combinations by Chomsky and Halle 1968:secs. 2.1, 3.9 adheres to a more restrictive theory: they assume that the stress differences correlate exactly with the distinction between compounds (which are Ns) and phrases (which are NPs), so that stress assignment rules need be sensitive only to the surface syntactic distinction between N and NP.[4]

This very Bloomfieldian analysis is also adopted by Halle and Keyser 1971:sec. 1.2. It is subject to the criticisms put forth by Lees and expanded on by Schmerling 1971, who concludes:

> It does seem to be the case that in some instances stress assignment is governed by the choice of head or attribute, in others by syntactic characteristics (whether the attributive has the superficial form of an adjective or a noun). There ought to be rules that capture these generalizations. In other cases stress assignment is an idiosyncratic property of individual compounds and ought to be indicated in the lexicon as such. The fact that stress placement is sometimes predictable should not make us try to predict it always. (60-1)

Schmerling 63-4 also mentions an alternation between afterstress in predicate compound adjectives (brând néw) and forestress when these compound adjectives appear in prenominal position (a brând nèw cár). She fails to see any satisfactory account for such facts. The facts, as it turns out, have been known for some time; a summary in Bolinger 1965b indicates that 'Jespersen credits James Elphiston with having noted in 1765 the rhythmic shift of stress in words like almost, forthwith, therein, for example, the laws written therein versus the laws thérein written' (139) and lists many examples. It remains for someone to distinguish the cases in which backshifting of stress is obligatory, optional, and prohibited, and to incorporate these observations in a grammar of English.[5]

Footnotes

*This work was begun during a visit to the Theoretical Psychology Unit of Edinburgh University. I am indebted to Christopher Longuet-Higgins and Stephen Isard for interesting me in the problem and encouraging my investigations, and to the Royal Society and the John Simon Guggenheim Memorial Foundation for their financial support.

1. Although my examples are primarily nominals, the discussion below applies as well to adjectival and verbal constructions.

2. For other examples of dialect variation, consider the fact that while American English typically has forestress in combinations with Building and House, British English typically has afterstress: Éliot Hòuse, the Brîll Building (American), India Hóuse, the Clârendon Buildings (British).

3. The notion of implicit contrast, though unacceptably fuzzy, has some appeal. The idea is that certain items are stressed because they are salient (they are in contrast with a number of other items from a large set, whereas the items with which they occur are not,

or are unmarked representatives of some class). For Marchand, implicit contrast explains forestress in bóokstòre, hárdware stòre, etc. (as opposed to hârdware empórium, bôok wárehouse, etc.). John Lyons has offered to me ingenious 'implicit contrast' accounts for the following puzzling facts about N + N combinations: (a) the difference between Smíth Strèet and Smîth Ávenùe/Pláce/Térrace/Láne/Wáy/Círcle..., and (b) the difference between Oxford and Cambridge colleges with the word college in them (which are forestressed: King's Còllege, Néw Còllege), and those with hall in them (which are afterstressed: Nêw Háll, Làdy Mârgaret Háll); street and college are the unmarked designations, hence less stressed, while other names for thoroughfares, and hall instead of the expected college, are stressed in contrast.

Similarly, Christopher Longuet-Higgins has suggested that the large number of afterstressed combinations with student as their first element (student affairs/expedition/discipline/rule/vote/power/revolt/grant/teaching...) comes from the occurrence of such combinations in contexts where various aspects of students are under consideration, so that only the second element is salient.

Another minor mechanism that might be supposed to explain the position of stress in N + N combinations is contamination. Perhaps the forestress of Brazil nut (as opposed to the afterstress of most combinations with geographical names as their first elements) is the result of contamination from peanut, walnut, hazelnut, chestnut, etc.

It should be noted that although implicit contrast and contamination are plausible accounts of the invention of, or historical change in, certain forms, the case for reference to implicit contrast and contamination in a synchronic grammar of English is less clear. Perhaps the position of stress in combinations with street is simply learned, and must be indicated as a property of the word street in modern English, and perhaps the fact that Brazil nut is forestressed is also learned, and must be listed as an exception in a grammar.

4. Plus some indication of exceptionality:

> The fact that a phrase is not subject to the Compound Rule might be formally indicated in various ways: for example, by a feature specification of the boundary between the constituents, in which case the rule can be limited to boundaries not containing this feature... Alternatively, we might provide for an ad hoc deletion of the node N dominating such compounds. (Chomsky and Halle 1968:156).

5. Various other stress peculiarities need further study. There are examples in which stress shifts to the right when a forestressed combination itself appears as the first element of a compound: hôusehòld cleánser instead of hóusehòld clêanser (compare sínk cleànser), ôverseas rátes (compare póstage ràtes), bâck seàt drîver (compare mótorcycle drîver--a minimal pair), bâll pòint pén (compare foúntain pèn and quíll pèn, etc.

In still other cases of combinations appearing as first elements of combinations, there is an optional shift to the right, perhaps to avoid ambiguity: afterstressed combinations like English language and Royal Society either keep their stress (Ênglish lánguage reseàrch, Rôyal Socíety Profèssor), or shift it to the next element (English lânguage reseárch, Rôyal Socîety profêssor). The first of these options is the stress we would predict on other grounds (compare Ênglish reseàrch 'research on English' and Ínstitute profèssor), but it yields combinations that are ambiguous with respect to their immediate constituent division ('research on the English language' and 'language research in English', 'professor in the Royal Society' or 'society professor who is royal').

Finally, there are several familiar problems surrounding the distribution of secondary and tertiary accents--élevator bòy vs. élevator ôperator and Lòng Ísland vs. a lông ísland. Since these do not concern which element of a combination receives the greater stress, I will not review the literature here. Note, however, that some of the afterstressed N + N types listed above have tertiary rather than secondary stress on their first elements (Mr. Jones, South America, King Edward, as opposed to John Jones, Eliot Hall, Grimes apple, etc.).

C. Items cited

Bierwisch, Manfred and Karl Erich Heidolph (eds.). 1970. Progress in linguistics. Mouton, The Hague.

Bloomfield, Leonard. 1933. Language. Holt, Chicago.

Bolinger, Dwight L. 1965a. Forms of English: accent, morpheme, order. Isamu Abe and Tetsuya Kanekiyo, eds. Hokuou Publishing Co., Tokyo.

_____. 1965b. Pitch accent and sentence rhythm. In Bolinger 1965a: 139-80.

Chomsky, Noam and Morris Halle. 1968. The sound pattern of English. Harper and Row, New York.

Gleitman, Lila R. and Henry Gleitman. 1970. Phrase and paraphrase: some innovative uses of language. W. W. Norton, New York.

Halle, Morris and Samuel Jay Keyser. 1971. English stress: its form, its growth, and its role in verse. Harper and Row, New York.

Jacobs, Roderick A. and Peter S. Rosenbaum. 1970. Readings in English transformational grammar. Ginn, Waltham, Mass.

Jespersen, Otto. 1942. A modern English grammar on historical purposes. Part VI. Morphology. George Allen and Unwin, London.

Kruisinga, Etsko. 1932. A handbook of present-day English. Part II. English accidence and syntax. Volumes 2 and 3, 5th ed. P. Noordhoff, Groningen.

Lees, Robert B. 1960. The grammar of English nominalizations. IJAL 26.3, Part II.

_____. 1970a. On very deep grammatical structure. In Jacobs and Rosenbaum 1970:134-42.

_____. 1970b. Problems in the grammatical analysis of English nominal compounds. In Bierwisch and Heidolph 1970:174-86.

Levi, Judith N. 1973. Where do all those other adjectives come from? CLS 9.332-45.

Marchand, Hans. 1960. The categories and types of present-day English word-formation. Otto Harrassowitz, Wiesbaden.

Poutsma, H. 1914. A grammar of Late Modern English. Part II. The parts of speech. Section I, A. Nouns, adjectives, and articles. P. Noordhoff, Groningen.

Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1972. A grammar of contemporary English. Seminar Press, New York and London.

Schmerling, Susan F. 1971. A stress mess. UI SLS 1.1.52-66.

Zandvoort, R. W. 1965. A handbook of English grammar. 3rd ed. Longmans, Green, London.

Zimmer, Karl E. 1971. Some general observations about nominal compounds. Stanford WPLU 5.C1-C21.

_____. 1972a. Appropriateness conditions for nominal compounds. Stanford WPLU 8.3-20.

_____. 1972b. Postscript to "Some general observations about nominal compounds". Stanford WPLU 8.153-5.